



Metrohm

Metrohm Lab Robotics

Custom solutions for
laboratory automation

PEOPLE
YOU
CAN
TRUST

**Metrohm**

Pioneers in laboratory automation – trusted worldwide

With over 60 years of innovation, Metrohm is a global leader in automated laboratory analysis.



Our autosamplers, sample changers, and robots are trusted across industries and analytical techniques, from titration and other wet chemical methods to ion chromatography and near-infrared spectroscopy.

Our OMNIS Sample Robots enable high throughput analysis automating tasks like aliquoting, pipetting or sample homogenization.

OMNIS SAMPLE ROBOT

A modular solution that can be scaled to accommodate up to 231 samples for fully automated analysis of several parameters in parallel.

WHY METROHM FOR LABORATORY AUTOMATION?

- 60+ years of automation expertise
- Deep integration of analytical techniques for optimized workflows
- End-to-end robotic solutions tailored to your laboratory's needs
- Understanding of the complete application from sample preparation to result evaluation
- Implementation into the digital workflow of your laboratory
- Global service and application support – in your language

Beyond standard automation

If your project goes beyond the capabilities of our extensive range of OMNIS sample robots, we are here to assist you. We partner with trusted engineering experts – or yours – to design and build fully customized robotic systems, including mobile robots handling your samples.

WE SPECIALIZE IN PROJECTS INVOLVING ...

- very complex and time-consuming sample preparation including temperature adjustments,

boiling under reflux, sample homogenization, and removing caps

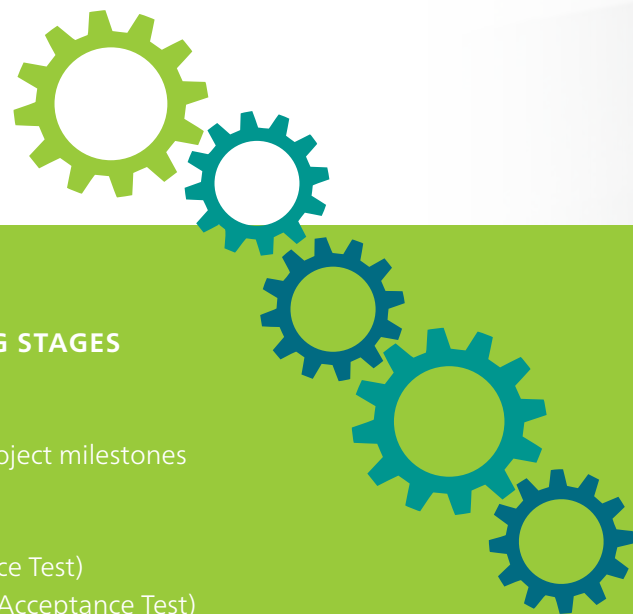
- automated volumetric or gravimetric sample measurement including powders, liquids, pills, or pastes
- high-volume sample processing
- integration of multiple analytical technologies
- seamless digital workflow integration
- the digital integration of the complete workflow in your data systems to guarantee traceability

From vision to fully operational automation

We take a structured approach and lead your project to success step by step.

THE TYPICAL PROCESS INCLUDES THE FOLLOWING STAGES

- Identifying needs and requirements
- Developing a customized concept and definition of project milestones
- Verifying and finetuning specifications
- Final approval of detailed technical design
- Engineering and assembly with FAT (Factory Acceptance Test)
- On-site installation and commissioning after SAT (Site Acceptance Test)
- Ongoing application support and service in usual Metrohm quality



Metrohm Lab Robotics – real-world examples

EXAMPLE 1:

A fully integrated robotic solution for TAN/TBN

This robotic system was custom-built for a leading contract laboratory for high-throughput analysis of Total Acid Number (TAN) and Total Base Number (TBN).

THE AUTOMATED WORKFLOW OF THIS SOLUTION INCLUDES

- Identification of the sample by barcode for complete traceability
- Opening and closing containers with screw caps
- Pipetting and weighing the sample
- Determination of TAN and/or TBN in up to four samples in parallel for a throughput of up to 400 samples per day
- Addressing all digital aspects with one control software (OMNIS Software)

EXAMPLE 2:

Multi-parameter analysis fully automated

This robotic solution was designed and built for the internal lab of a big chemical plant checking their samples for several different end groups (e.g., acid value, saponification value, iodine value, hydroxyl value, peroxide value and more). Our engineering partner for this fully integrated robotic solution was Alslys International.

THE AUTOMATED WORKFLOW OF THIS SOLUTION INCLUDES

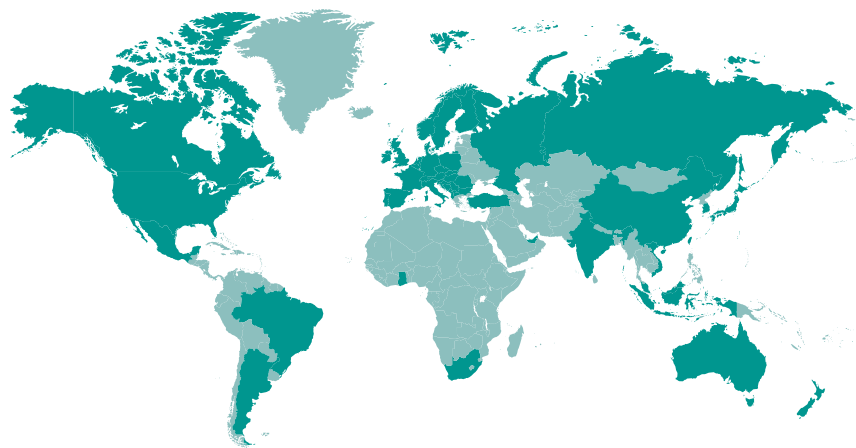
- Samples can be tracked in the system by RFID
- Opening and closing of screw-cap bottles
- Weighing the sample
- Time-controlled heating (incl. reflux boiling) of samples for reactions
- Performing up to 400 analyses in 24/7 mode
- All system components controlled by one software



Competent service and application support – worldwide

What sets us apart from most of our competitors: We are present worldwide in more than 80 countries with our own subsidiaries and exclusive distributors.

METROHM – PEOPLE YOU CAN TRUST



Our trained and certified service engineers and application specialists provide on-site service and support guaranteeing maximum availability of your Metrohm solution.